ColorFlat 12 5 Watt

4-in 1 LED Par Light

High Power LED Flat Par Light 12 5 watt Four-in-One LED's

Specifications:

- Power Supply: AC110-240V 50-60Hz
- Fuse: 5A
- Total Power: 65W
- LED's: 12x5W 4-in-1 LED's
- Angle of Optical Lens: 40 Degrees
- Channel: 7 channels
- Static Color Select Mode 15 Colors to choose
- Dimmer Mode: Dim down Red, Green, Blue and White
- Color Jumping Mode
- Color Washing Mode
- Auto Program Mode
- Sound Activation Mode
- Slave Mode
- Display : Blue Screen/4buttons, from left to right: Menu/Down/Up/Enter
- Size: 11" x 4" x 12"
- Weight: 6.5 lbs

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4-in 1 LED Par Light

ColorFlat-5 ColorFlat-12 QCL

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

For your own safety, please read this user manual carefully before you initially start-up.

Every person involved with the installation, operation and maintenance of this device has to
- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen a ColorFlat Fixture. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Unpack your ColorFlat.

SAFETY INSTRUCTIONS

CAUTION!
Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

Important:
Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

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4-in 1 LED Par Light

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing do not take the device into operation and immediately consult your local dealer?

This device falls under protection-class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage.`

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

If extension cords are used make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.

HEALTH HAZARD!

Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!

Keep away children and amateurs!

Never leave this device running unattended.

ColorFlat 12 5 Watt

4-in 1 LED Par Light

OPERATING DETERMINATIONS

This device is a lighting effect for creating decorative effects. This product is only allowed to be operated with an alternating voltage of 230 V, 50 Hz and was designed for indoor use only.

This device is designed for professional use, e.g. on stages, in discotheques, theatres etc.

Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45° C.

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The symbol determines the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 0.1 meters.

This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety bond.

The maximum ambient temperature T_a = 45° C must never be exceeded.

Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported. Make sure that you pack the device in the original state.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
Never remove the serial barcode from the device as this would make the guarantee void.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

ColorFlat 12 5 Watt

4-in 1 LED Par Light

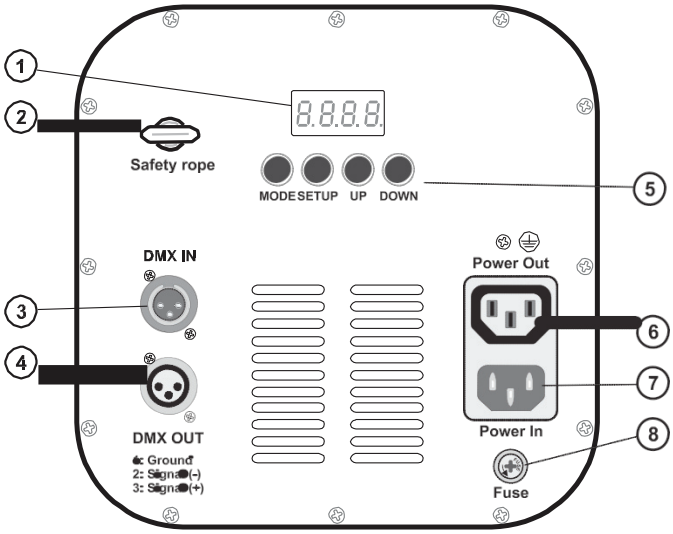
DESCRIPTION OF THE DEVICE

Features

ColorFlat LED spot with 5 W QCL

- Equipped with 4in1 quad color LEDs for homogeneous light output
- Flat housing form requires minimal space when rigging
- Second mounting bracket for safe standing installation
- Comfortable addressing and setting via control panel with LED display
- Functions: Static colors, RGB color blend, internal programs, dimmer, strobe, sound-control, sensitivity
- Further display settings: display on or off, display inverted, default settings
- Operable in stand-alone mode or via DMX
- Master/Slave for parallel operation of several devices
- DMX512 control via regular DMX-controller
- Number of DMX channels selectable for numerous applications
- Sound-control via built-in microphone
- Ready for connection with power cord and safety plug
- Feed-through output allows powering another device
- After every 8 devices the fixtures must have a renewed connection with the

Overview



(1) LED Display
(2) Attachment eyelet for safety rope
(3) DMX-In socket
(4) DMX-Out socket
(5) Programming buttons
(6) IEC output socket
(7) Power supply
(8) Fuse holder

INSTALLATION

The device can be installed on the ground or on the wall or ceiling.

Overhead rigging

DANGER TO LIFE!
Please consider the EN 60598-2-17and the respective national standards during the installation!
The installation must only be carried out by an authorized dealer!

The installation of the device has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the device staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

Procedure:
The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices in hanging installations may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.

DANGER OF FIRE!
When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.

Mount the device to your trussing system using an appropriate clamp.

For overhead use, always install an appropriate safety bond.

You must only use safety bonds complying with DIN 56927, quick links complying with DIN 56927, shackles complying with DIN EN 1677-1 and BGV C1 carbines. The safety bonds, quick links, shackles and the carbines must be sufficiently dimensioned and used correctly in accordance with the latest industrial safety regulations (e. g. BGV C1, BGI 810-3).

Please note: for overhead rigging in public or industrial areas, a series of safety instructions have to be followed that this manual can only give in part. The operator must therefore inform himself on the current safety instructions and consider them.

The manufacturer cannot be made liable for damages caused by incorrect installations or insufficient safety precautions!

Pull the safety bond through the attachment eyelet and over the trussing system or a safe fixation spot. Insert the end in the quick link and tighten the safety screw.

The maximum drop distance must never exceed 20 cm.

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A safety bond which already held the strain of a crash or which is defective must not be used again.

Adjust the desired inclination-angle via the mounting-bracket and tighten the fixation screws.

DANGER TO LIFE!
Before taking into operation for the first time, the installation has to be approved by an expert!

DMX512 control

The wires must not come into contact with each other, otherwise the devices will not work at all, or will not work properly.

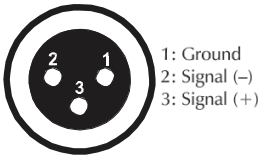
Please note, the starting address depends upon which controller is being used.

Only use a DMX cable and 3-pin XLR plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR connection:

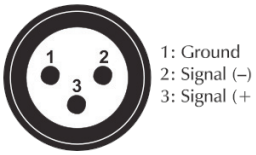
DMX-output

XLR mounting-socket:



DMX-input

XLR mounting-plug:



If you are using controllers with this occupation, you can connect the DMX output of the controller directly with the DMX input of the first device in the DMX chain. If you wish to connect DMX controllers with other XLR outputs, you need to use adapter cables.

Building a serial DMX chain:
Connect the DMX output of the first device in the DMX chain with the DMX input of the next device. Always connect one output with the input of the next device until all devices are connected.

Caution: At the last fixture, the DMX cable has to be terminated. Plug the terminator with a 120 Ω resistor between Signal (–) and Signal (+) in the DMX output of the last fixture.

Master/Slave operation

The master/slave operation enables that several devices can be synchronized and controlled by one master device.

On the rear panel of the device you can find an XLR jack and an XLR plug, which can be used for connecting several devices.

Choose the device which is to control the effects. This device then works as master device and controls all other slave devices, which are to be connected to the master device via a DMX-cable. Connect the OUT jack with the IN plug of the next device.

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4-in 1 LED Par Light

Connection with the mains

Connect the device to the mains with the enclosed power supply cable.

The occupation of the connection-cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚

The earth has to be connected!
If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.
The device must only be connected with an electric installation carried out in compliance with the IEC-standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.
Lighting effects must not be connected to dimming-packs.

On the rear panel, there is an IEC socket (Power Out). Connect the output with the mains input of the next fixture until all fixtures are connected.

Please note: A maximum of 8 devices may be linked together. After every 8 devices, the fixtures must have a renewed connection with the power mains.

OPERATION

After you connected the spot to the mains, the device starts running.

The LED display lights up and you can choose the desired mode via the buttons MODE, SET UP, UP and DOWN.

See following graphic.

MODE	SET UP	UP / DOWN	FUNCTION Red
DIMMER	Red	r.000~r.255	Adjust the intensity of the red color Green ~
	Green	G.000~G.255	Adjust the intensity of the green color
	Blue	b.000~b.255	Adjust the intensity of the blue color
	White	H.000~H.255	Adjust the intensity of the white color
	Flash speed, increasing	F5.00~F5.15	F5.00 is off, F501 is slowest, F5.15 is fastest
SOUND	Program selection	So-1~So 16	Select the internal sound-controlled program
	Sensitivity selection, increasing	SJ-1~SJ-8	SJ-1 is lowest level, SJ-8 is highest level
AUTO	Fading colors	AF-1~AF.16	Select the internal fading color program
	Switching colors	AJ-1~AJ.16	Select the internal switching color program
	Speed set	SP.01~SP.16	Adjust the speed of the internal programs
STATIC COLOR SELECT	Color select	CL-0~CL.15	Select static color
	Flash speed, increasing	F5.00~F5.15	F5.00 is off, F501 is slowest, F5.15 is fastest
OTHER	Display: on/off	don	LED digital display always on
		doFF	LED digital display off
	Display: normal/inverse	Stnd	LED digital display normal
		rnJJ	LED digital display inverted
	Default setting	dEFA	Initialize the default settings

DMX	Addressing	A.001~A.512	Sets the DMX starting address
	DMX Channel Occupation	Ch.04	The unit occupies 4 DMX channels
		Ch.06	The unit occupies 6 DMX channels
		Ch.07	The unit occupies 7 DMX channels

Dimmer mode

Press the MODE button to select the dimmer mode. Select the desired color via the SET UP button.

You can select the desired values via the UP or DOWN buttons.

Press the SET UP button to select the flash speed.

You can select the desired values via the UP or DOWN buttons.

Sound controlled mode

Press the MODE button to select the sound controlled mode.

In sound controlled mode there are 2 sub-menus to choose from. Please press the SET UP button to reach the selection.

At So-1~So16 you can select the desired programs via the UP or DOWN buttons.

At SJ-1~SJ-8 you can select the desired sensitivity via the UP or DOWN buttons.

Auto mode

Press the MODE button to select the auto mode.

In auto mode there are 3 sub-menus to choose from. Please press the SET UP button to reach the selection.

At AF-1~AF16 you can select the desired fading color program via the UP or DOWN buttons.

At AJ-1~AJ16 you can select the desired switching color program via the UP or DOWN buttons.

At SP.01~SP.16 you can select the desired speed of the color programs AF or AJ via the UP or DOWN buttons.

Static color mode

Press the MODE button to select the static color mode.

In this mode there are 2 sub-menus to choose from. Please press the SET UP button to reach the selection.

At CL-0~CL15 you can select the desired color via the UP or DOWN buttons.

At FS.00~FS.15 you can select the desired flash speed of the selected color via the UP or DOWN buttons.

Other mode

In this mode there are 3 sub-menus to choose from. Please press the SET UP button to reach the selection, as appropriate.

At don and doFF via the UP or DOWN buttons, you can decide if the display should always be on, or

if it should turn off after 60 seconds of inactivity.

At Stnd and d03r via the UP or DOWN buttons, you can decide if the display should display normally, or if it should display upside-down.

At dEFA you can reset to ex works setting. Please push the UP and DOWN buttons at the same time. The display shows AJ-1 and the color switching programs begin to run.

DMX-mode

The Control Board allows you to assign the DMX fixture address, which is defined as the first channel from which the device will respond to the controller.

Addressing
Press the MODE button to select the DMX mode and the display shows A.001~A.512.

You can select the desired addresses via the UP or DOWN buttons.

Controlling:
After having addressed the device, you may now start operating it via your lighting controller.

Note:
After switching on, the device will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the control displays flashes. This function is only available if the display mode under Other was set to don.

This situation can occur if:
- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the device.
- the controller is switched off or defective.
- the cable or connector is defective or the signal cable is not well connected.

DMX Channel Selection: Choosing a DMX Channel Mode
After having set the desired address, you can now choose a DMX Channel Mode. (4 CH, 6 CH, 7 CH).

Please press the SET UP button until the display shows Ch.04/Ch.06/Ch.07.

Set the desired mode via the UP or DOWN buttons.

DMX-protocol

4-channel mode:
In this mode, the last possible starting address is 509.

CH	Value	Function
1	000~255	Red (0-100%)
2	000~255	Green (0-100%)
3	000~255	Blue (0-100%)
4	000~255	White (0-100%)

6-channel mode:
In this mode, the last possible starting address is 507.

CH	Value	Function
1	000~255	Red (0-100%)
2	000~255	Green (0-100%)
3	000~255	Blue (0-100%)
4	000~255	White (0-100%)
5	000~255	Dimmer (0-100%)

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6	000	No function
	001 – 010	Sound Control
	011 – 255	Strobe (increasing)

7-channel mode:
In this mode, the last possible starting address is 506.

CH7			CH6	CH5	CH4	CH3	CH2	CH1
MODE	VALUE	FUNCTION						
1	0-5	No function	Strobe 016 – 255 (increasing)	Dimming 0-255 (0-100%)	White 0-255 (0-100%)	Blue 0-255 (0-100%)	Green 0-255 (0-100%)	Red 0-255 (0-100%)
2	6-10	C1			No function	No function	No function	No function
3	11-15	C2						
4	16-20	C3						
5	21-26	C4						
6	27-31	C5						
7	32-36	C6						
8	37-41	C7						
9	42-46	C8						
10	47-51	C9						
11	52-56	C10						
12	57-61	C11						
13	62-66	C12						
14	67-71	C13						
15	72-77	C14						
16	78-82	C15						
17	83-87	Color dreaming 1	Speed 0 - 255 (slow→fast)					
18	88-92	Color dreaming 2						
19	93-97	Color dreaming 3						
20	98-102	Color dreaming 4						
21	103-107	Color dreaming 5						
22	108-112	Color dreaming 6						
23	113-117	Color dreaming 7						
24	118-122	Color dreaming 8						
25	123-127	Color dreaming 9						
26	128-133	Color dreaming 10						
27	134-138	Color dreaming 11						
28	139-143	Color dreaming 12						
29	144-148	Color dreaming 13						
30	149-153	Color dreaming 14						
31	154-158	Color dreaming 15						
32	159-163	Color dreaming 16						
33	164-168	Color change1						
34	169-173	Color change 2						
35	174-179	Color change 3						
36	180-184	Color change 4						
37	185-189	Color change 5						
38	190-194	Color change 6						
39	195-200	Color change 7						
40	201-205	Color change 8						

41	206-209	Color change 9						

42	210-214	Color change 10						
43	215-219	Color change 11						
44	220-224	Color change 12						
45	225-230	Color change 13						
46	231-235	Color change 14						
47	236-240	Color change 15						
48	241-245	Color change 16						
49	246-255	Sound active	Sensitivity 32-255 (increasing)					

CLEANING AND MAINTENANCE

The operator has to make sure that safety-relating and machine-technical installations are inspected by an expert after every four years in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1) All screws used for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2) There must not be any deformations on housings, fixations and installation spots (ceiling, suspension, trussing).
3) The electric power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

DANGER TO LIFE!
Disconnect from mains before starting maintenance operation!

We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Open the fuse holder on the rear panel with a fitting screwdriver.
Step 2: Remove the old fuse from the fuse holder.
Step 3: Install the new fuse in the fuse holder.
Step 4: Replace the fuse holder in the housing.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by a special power supply cable available at your dealer.

Should you have further questions, please contact your dealer.

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4-in 1 LED Par Light

TECHNICAL SPECIFICATIONS

	ColorFlat 5x5W	ColorFlat12x5W
Power supply:	120 V AC, 50 Hz ~	120 V AC, 50 Hz ~
Power consumption:	35 W/70 VA	75 W/135 VA
Number of DMX channels:	4/6/7	4/6/7
DMX512 connection:	3-pin XLR	3-pin XLR
Sound-control:	via built-in microphone	via built-in microphone
LED type:	5 W QCL	5 W QCL
Number of LEDs:	5	12
Beam angle:	20°	20°
Dimensions (WxDxH):	230 x 110 x 270 mm	270 x 110 x 310 mm
Weight:	3 kg	3.5 kg

Maximum ambient temperature T_a:	45° C
Maximum housing temperature T_C (steady state):	60° C
Min. distance from flammable surfaces:	0.5 m
Min. distance to lighted object:	0.1 m
Fuse:	T 1 A, 250 V